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COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

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Educational Research Bulletin

THE WORK OF AN APPOINTMENTS DIVISION[1]

EARL W. ANDERSON
Ohio State University

THE functions of an appointments division or teacher-placement bureau in any university, are to find desirable teachers for school officials and to collect and analyze information regarding all phases of supply and demand in teaching. Each year an increasing number of successful contacts should be arranged between persons seeking teachers and qualified teachers desiring new positions. In this connection, all those concerned should receive from the bureau full information which will help them in making their decisions. Each year the placement service should provide organized data upon the subject combinations most in demand, opportunities in specific fields, factors that militate against teachers in securing positions, strong and weak phases in the training of teachers, actual work the beginning teacher is asked to do, seasonal demands for teachers, and trends in the teacher needs and demands of the schools.

The placement-service value of an appointments office in any one year depends upon the number, quality, preparation, and experience of available candidates; the quantity and desirability of the calls received; the completeness of the knowledge regarding each candidate; the cooperation of faculty members; the number of candidates whose placements are seriously restricted by such factors as race or religion; the optimism or conservatism of those in charge; and the standing of the institution which it serves. The efficiency of an appointments division over a period of years may also be increased by diverting students from lines of preparation not in demand into those in which there is a distinct shortage, and by discovering and executing needed changes in the academic and professional teacher-training requirements.

School officials praise an appointments office that aids them in securing high-grade teachers. Securing no aid, or unsatisfactory teachers, they will subsequently look elsewhere. Candidates, on the other hand, praise an appointments office if, through its services, they secure desirable positions —its efficiency is gauged in terms of their own interests. A large number of conflicting factors are involved in measuring the effectiveness of any appointments office. It was with the purpose of analyzing and organizing as

[1] This is the second of a series of studies showing the work of the Appointments Division at Ohio State University. The first was reported in this Bulletin for October 3, 1928.

many facts regarding teacher placement as possible that this study presented here was undertaken. The facts should give a basis for comparing the Appointments Division of the Bureau of Educational Research, at Ohio State University, with similar departments elsewhere. This general survey covers the work of the Division for the calendar year 1928.

Record-keeping in an appointments office is difficult, because, during the rush season, records are neglected unless there is a determined and persistent effort to keep them up-to-date; and because candidates neglect to send changes of address, fail to notify the office that they have secured positions, do not answer follow-up cards, or give such meager information that the record can only show that they are "teaching." Even with persistent searching for information regarding them, the whereabouts of 36 of the 783 on the active file last year are unknown. Information about others is indefinite in certain respects.

Sixty-three percent of those who received the degree of Bachelor of Science in Education from Ohio State University in 1928 registered with the Appointments Division. It may be that a large number did not register because they had positions early in the year, because they were on leave of absence to secure degrees, or because they were teachers who came to the University last summer to complete the work for their degrees. Beginning this year, all students who are graduated in Education from this University must register with the Appointments Division. Complete records of all graduates will then be available at the end of each year.

TABLE I

ALL REGISTRATIONS, WITHDRAWALS, AND PLACEMENTS OF THE APPOINTMENTS DIVISION IN 1928

	DEGREES						TOTAL
	Undergraduate	B.A. B.S.	B.S. in Education	B.S. in Agriculture	M.A.	Ph.D.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Registered	31	121	391	44	175	21	783
Now teaching	18	83	265	30	111	20	527
Directly placed	5	21	77	10	13	5	130
Directly aided	1	7	22	4	11	3	48
Refused offers	1	.....	11	15	9	2	38
Back to old positions	3	8	30	.....	21	3	65
Withdrawn	1	12	36	6	24	1	80
No trace of	2	7	21	.....	6	.....	36
Now available	10	19	69	8	34	.....	140

Table I shows the registrations, withdrawals, and placements in the Appointments Division for 1928. The number registered includes only those who filled out the new detailed blanks put into use in January, 1928. Only registrants who received positions as a direct result of requests from school officials for aid in filling specific vacancies are listed under "directly placed." The number directly aided are those whose initial contacts with school officials by whom they were employed were not made through the Appointments Division, but whose papers were sent to, or their qualifications discussed

with, the administrators interested. The credentials are sent only at the request of candidates, university professors, or school administrators.

The policy of assembling and of making available to school officials considerable detailed information concerning those on our files has undoubtedly kept some candidates from serious consideration for positions. This service is given in the interests of the public-school pupils and it must necessarily be thorough and exact.

TABLE II

REGISTRATIONS, WITHDRAWALS, AND PLACEMENTS OF EXPERIENCED AND INEXPERIENCED CANDIDATES REGISTERED WITH THE APPOINTMENTS DIVISION IN 1928

Status	Registered	Now Teaching	Placed Directly	Aided Directly	Back to Old Position	Withdrawn	No Trace	Now Available
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Experienced							
Undergraduate:								
Men	8	6	1	1	1	.....	.....	2
Women	11	6	2	.....	2	1	2	2
B.A. or B.S. Degree:								
Men	51	37	10	2	8	4	3	7
Women	35	21	7	1	.....	5	2	7
B.S. in Education:								
Men	46	37	13	3	10	2	3	4
Women	129	88	16	4	20	11	7	23
B.S. in Agriculture:								
Men	9	5	3	.....	.....	1	.....	3
Women	14	10	4	1	.....	3	.....	1
M.A. Degree:								
Men	96	70	6	9	16	10	2	14
Women	56	28	5	1	5	10	4	14
Ph.D. Degree:								
Men	18	18	5	3	3	.....	.....	.....
Women	2	1	.....	.....	.....	1	.....	.....
Total:								
Men	223	173	37	18	38	17	8	30
Women	247	154	34	7	27	31	15	47
	Inexperienced							
Undergraduate:								
Men	3	2	.....	.....	.....	.....	.....	1
Women	9	4	2	.....	.....	.....	.....	5
B.A. or B.S. Degree:								
Men	15	9	2	2	.....	2	2	2
Women	20	16	2	2	.....	1	.....	3
B.S. in Education:								
Men	29	20	9	1	.....	.....	.....	9
Women	187	120	39	14	.....	23	11	33
B.S. in Agriculture:								
Men	1	.....	.....	.....	.....	1	.....	.....
Women	20	15	3	3	.....	1	.....	4
M.A. Degree:								
Men	10	5	1	.....	.....	3	.....	2
Women	13	8	1	1	.....	1	.....	4
Ph.D. Degree:								
Men	1	1	.....	.....	.....	.....	.....	.....
Women	.....	.....	.....	.....	.....	.....	.....	.....
Total:								
Men	59	37	12	3	.....	6	2	14
Women	249	163	47	20	.....	26	11	49

Of those actively on the files of the Appointments Division for 1928, approximately two-thirds are now teaching. Of these, one-third received direct aid from the Appointments Division.

Many people think that appointments offices are not concerned with placing graduate students in colleges. According to Table I, of the 21 candidates with Ph.D. degrees who registered at the Appointments Division, 8 received definite service. There were 175 people with Master's degrees registered, and 24 of them were aided by having on file in the Appointments Division complete data, easily sent, at the time teachers are recommended for positions.

Approximately two-thirds of the active candidates in 1928 had previous experience. The Division has been somewhat handicapped in placing these people because of a widespread belief

TABLE III

PERCENTS OF THOSE REGISTERED WITH THE APPOINTMENTS DIVISION IN 1928 WHO WERE TEACHING OR WERE AVAILABLE ON JANUARY 1, 1929

STATUS	NOW TEACHING		PLACED OR AIDED DIRECTLY		NOW AVAILABLE	
	Experienced	Inexperienced	Experienced	Inexperienced	Experienced	Inexperienced
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Undergraduates:						
Men	75	66	25	.....	25	33
Women	55	44	18	22	18	56
B.A. or B.S. Degrees:						
Men	73	60	24	27	14	13
Women	60	80	23	20	29	15
B.S. in Education:						
Men	81	69	35	35	9	31
Women	68	64	16	23	18	18
B.S. in Agriculture:						
Men	56	.....	33	.....	33	.....
Women	72	75	36	30	7	20
M.A. Degree:						
Men	73	50	16	10	15	20
Women	50	52	12	15	25	34
Ph.D. Degree:						
Men	100	100	45	.....	.....	.....
Women	50	.....	8	.....	.....	.....
Average:						
Men	76	63	24	25	13	24
Women	62	66	17	27	19	20

the Division. Despite the large number of candidates on file with advanced degrees, 68 calls for college teachers were received for which there was no one to recommend. The students who receive advanced degrees are in rather close contact with their major professors who recommend them directly for positions which are open. Even in such cases, professors and candidates are more definitely realizing the value of that it is chiefly interested in placing inexperienced people. More service can be given the larger cities as the registration of experienced teachers increases and as greater effort is made by the teaching graduates to keep in touch with the Appointments Division.

The extent to which the inexperienced graduates of the College of Education are being absorbed into teaching positions is of distinct concern to all

interested in the progress of the College. Table II gives this information for both men and women. The large majority of the inexperienced candidates are women. This is especially noticeable in the figures for those who received Bachelor of Science degrees in Education. Comparison of the inexperienced and experienced candidates shows that while the experienced men did better in securing positions than did the experienced women, a slightly higher percent of the inexperienced women obtained teaching positions than did the men of no experience. Only one of the 21 persons with Ph.D. degrees was without previous experience. Ninety-six of the 106 men with Master's degrees were experienced teachers, while 56 of the 69 women holding Master's degrees had taught. In the majority of these cases, some experience was gained before completing the work for advanced degrees.

The placement of candidates with different amounts and types of training are most easily shown by comparing the percent of those now teaching with the percent of those now available in each classification. The percents are shown in Table III. The average percents in Columns 6 and 7 show that between one-fifth and one-sixth of those who desired positions are not teaching. Approximately the same number of inexperienced and experienced women candidates are available. Almost twice as large a percent of inexperienced as of experienced men candidates are shown by this table to be available for positions.

The data given in Tables I, II, and III indicate that, in general, an oversupply of teachers exists in Ohio. The fact that there were 262 vacancies for which the Division had no candidate to recommend or even to suggest shows that such oversupply exists only in certain fields. Table IV lists the calls according to the type of position.

TABLE IV

CALLS AND RECOMMENDATIONS MADE BY APPOINTMENTS DIVISION IN 1928

Type of Position	Number of Calls	Number of Recommendations	None to Recommend
(1)	(2)	(3)	(4)
High school	639	1,300	110
College and university	141	128	37
Elementary	108	124	32
Teachers college	126	115	30
Junior high	63	145	9
Elementary and high school	41	78	13
Principal high school	34	76	5
Junior and senior high	30	58	6
Critic teachers[a]	23	17	5
Preparatory schools	21	16	6
Junior college	16	19	5
Superintendents of schools	9	19	2
Opportunity schools[a]	7	17	.....
Principal, elementary school	5	2	2
Trade school	4	2	2
Librarian[a]	3	.....	3
High school and junior college	3	1	.....
High school and normal	4	1	.....
Principal, junior high	2	4	.....
Psychologist[a]	2	3	.....
School music[a]	2	2	.....
Dean of men[a]	1	1	.....
Assistant director of private school[a]	1	1	.....
Secretary, bureau of admissions and appointments[a]	1	1	.....
Assistant registrar[a]	1	1	.....
Supervisors[a]	1	1	1
Commercial schools	1	1	.....
Business university	1	3	.....
Camp director, Y. W. C. A.[a]	1	2	.....
Miscellaneous	6	6	3
Total	1,254	2,099	262

[a]Counted under other classifications and not included in totals.

It is seen from Table IV that the largest number of requests came for high-school teachers. There were,

however, 141 calls from colleges and universities and 126 from teachers colleges and normal schools. The distinct fields of teacher shortage, as indicated by cases in which no recommendations could be made, are kindergarten and primary; elementary training schools—critic teachers; library; and combinations of high-school academic subjects with industrial arts, music, art, home economics, or physical education.

TABLE V

NUMBER OF REQUESTS FOR TEACHERS RECEIVED BY THE APPOINTMENTS DIVISION IN 1928

State	Public Schools	Colleges, Universities, Normal Schools	Private Schools
(1)	(2)	(3)	(4)
Ohio	803	46	7
West Virginia	36	15	.....
Missouri	2	36	1
Pennsylvania	14	21	.....
Indiana	20	11	3
Kentucky	6	22	2
Arkansas	16	9	.....
Illinois	12	8	1
Michigan	13	6	.....
Tennessee	1	15	.....
Nebraska	.....	15	.....
Texas	2	13	.....
Wisconsin	1	13	.....
Kansas	2	10	.....
South Carolina	.....	8	.....
California	2	2	5
Other states[a]	12	41	1
Total	942	291	20

[a] "Other states" are Georgia, Iowa, Florida, South Dakota, Idaho, New York, Washington, China, Colorado, Louisiana, Oklahoma, Minnesota, Alabama, Delaware, Maine, Massachusetts, New Mexico, Oregon, and District of Columbia.

Twenty-two percent of the calls were for positions of such nature or involving such conditions that no recommendations could be made. Some of these included unusual combinations of subjects, others were in fields in which no preparation is given at the Ohio State University. In still other cases, specified training and experience were required at salaries that would not attract people of the qualifications which were desired.

The Appointments Division usually recommends two people for each position. If a superintendent comes personally he may interview as many as four or five candidates. Occasionally a number of subjects are divided between two or three teachers, no specific combination being required for each teacher. These conditions make the number of recommendations much larger than the number of calls. Several times the persons suggested were really only possibilities for unusual types of positions. In such instances, the teacher was not notified of the vacancy until the administrator expressed a definite interest in the person recommended. This policy gives a maximum of assistance with a minimum of inconvenience to school men in locating teachers.

The geographical distribution of calls received in 1928 is shown in Table V. While the great majority of the requests came from Ohio schools, college and university calls also came from practically all over the United States. Two calls were received for people to fill college positions in China. As would be expected, the largest number of calls for assistance in filling vacancies in teaching positions came from Ohio. Since the majority of those in training at Ohio State University are preparing for public school positions, the largest number of calls came for teachers to fill positions in that educational field. Very few calls for people to take public school positions were received from states other than those bordering Ohio. For those public school calls from distant states, service was

sometimes reduced because the teachers were reluctant to go far from Ohio. In the college field there is usually no such objection, hence the colleges and universities which were located a considerable distance away were in a number of instances given definite aid in securing excellent teachers for their institutions.

Additional studies of information recorded in the Appointments Division will be reported in later issues of this Bulletin. Included will be analyses of combinations of subjects called for by school officials, a study of the subjects for which candidates were qualified, a survey of the actual work of beginning teachers, and a distribution of calls and placements during 1928.

ARITHMETIC DRILL —

Carleton Washburne and some of his teachers have written an elaborate set of drill exercises covering the first three grades of the elementary school.[1] When complete, the series will cover six grades. It now contains seven pamphlets for the pupil and one for the teacher.

The series contains much that is highly commendable, and the work has been carefully and honestly done. Few people will realize the amount of labor that was necessary before the series could even begin to assume its present form. The authors have done this work and have been willing to put their cards on the table. The teachers manual tells how the work was planned and gives tables showing the distribution of practice—a thing that too often is conspicuously absent in published data relative to arithmetic material.

The authors are to be commended also on the fact that they have dared to be different. All recent writers in education have known the fundamental significance of individual differences, but many of them have been afraid to publish a technique for taking care of them. For all of these things we are indebted to Dr. Washburne and his associates.

While the general foundation of the series is sound, certain assumptions and implications have been made that are open to question. First of all, is the assumption that differentiated instruction should be based upon time as the only variable. Instruction is differentiated on the basis of quantity of work done per unit of time. In accordance with this idea, bright and dull pupils differ essentially only in the rate at which they work. Any imbecile could become a philosopher if he could only live long enough. Quality of learning seemingly plays no part at all in the type of individual instruction for which this series is to be the basis.

A second assumption is that the functions of the teacher are to be curtailed as much as possible. The series is described as self-instructive and self-corrective. "Each child should be able to work his way through them with very little help." This sounds attractive and doubtless the series will be as manna in the wilderness to those unfortunate children who must go to school to an ignorant or lazy teacher. But, most teachers are neither lazy nor ignorant, and there are those who be-

[1] Washburne, Carleton, and others. *Washburne Individual Arithmetic:* Books I to V, Correction Book, Key, and Teachers Manual. Yonkers-on-Hudson, New York, World Book Company, 1928.

lieve that the teacher of primary arithmetic has real and substantial functions to perform which should not be delegated nor evaded.

The series is also open to question on its mathematical side. According to the plan of the authors, the pupil starts working through his books. The content is arranged in steps which are supposed to represent true levels of difficulty. The number combinations are arranged in steps of difficulty based on the findings of Professor Clapp. Clapp based his study on errors made by pupils in the upper grades. Recent investigations have shown that the rankings of relative difficulty which he obtained on this basis are not particularly reliable as measures of relative difficulty when the combinations are taught properly to beginners. The Washburne Series assumes that combinations should be taught in abstract form from the beginning; but recent investigations indicate that this is getting things wrong end foremost.

After the pupil has worked for a time in his book he comes to a practice test. If any of his answers is wrong he is referred to his Correction Book which is said to give him practice upon that which caused his error. For example, if a wrong answer is obtained to $49 + 2$ the child is referred to a series of exercises in his Correction Book containing such elements as $38 + 3$. The validity of this plan seems doubtful. It might easily mean that a child who makes one mistake on his practice test is given a chance to make more mistakes of the same sort in his Correction Book.

The correction exercises for errors in column addition are based upon what is described as "addition circles." Thirty-four of these "circles" are used. A "circle" is defined as a "group of three combinations, the first number of each of which is the answer of the preceding one—or the last digit of that answer. For example: $7 + 6$, $3 + 9$, $2 + 5$ make a 'circle': for $7 + 6 = (1)\ 3$, $3 + 9 = (1)\ 2$, $2 + 5 = 7$ which brings us back to our starting point, $7 + 6$."

If a child gets a wrong answer to Example A, he is required to practice on examples which contain the numbers 7, 6, 3, 9, 2, and 5 from the "circle" which has just been described.

Example A Add up:

6
5
9
6
7

The practice test in the Correction Book is made up of exercises in which these six digits are mixed in various ways, but the particular combination of digits, shown in Example A, is missing. Some of the exercises in the Correction Book involve carrying and some do not. The number of columns of figures ranges from 1 to 4, and the columns are from 2 to 6 figures high. In Example A, if the addition is upward, the combinations are $7 + 6$, $13 + 9$, $22 + 5$, and $27 + 6$. In the corresponding exercise in the Correction Book, $7 + 6$ occurs five times, $13 + 9$ three times, $22 + 5$ twice, and $27 + 6$ not at all. This type of correction exercise is valid if we assume a perfect transfer between combinations whose sums end with the same digit. This means that every child who has learned $7 + 6$ will learn correctly at the same time $17 + 6$ and $27 + 6$.

This seems doubtful in the case of slow pupils. Consequently, the correction exercises for column addition appear to be most doubtful for the pupils who need them most.

The weakest portions of the series are the sections relating to carrying in multiplication. One of these is in the Correction Book and the other in Book Four. The exercises in these sections are organized in accordance with the unit's digit in products. For example, the numbers 4, 14, 24, 54, and 64 are products whose unit's digit is 4. It is assumed that in carrying in multiplication we add each of the digits from 1 to 9 inclusive to each of these five products. The exercises are in the following form: Add 8 to 2×2. Add 7 to 2×7. Add 9 to 6×9. But, the fact of the matter is that no one ever has or ever will carry 9 in the multiplication of single digit factors. Similarly, no one ever can add 8 to 2×2 or 7 to 2×7 while carrying in multiplication. There are 150 exercises of this sort in the Correction Book. Of these, 76 are impossible. There are 175 genuine exercises involved in carrying in multiplication, but the Correction Book contains only 74 of them. If these exercises are to be of acceptable validity, they will have to be reorganized in accordance with the true principle involved, that the amount carried must always be less than the multiplier.

In general, the correction exercises are open to the criticism that they depend too much upon transfer and that they offer no help to a child who does not know his combinations. There are no correction exercises for Book I and none for carrying in division.

In spite of all these possible faults, however, the administration of subject-matter in terms of individual differences is a pressing problem and Dr. Washburne and his associates have done excellent service in attacking it. Their contributions will be valuable in one-room rural schools and under any condition in which the teacher is so burdened that the pupils are forced, in large measure, to take care of themselves. As an earnest, honest piece of work the contributions will be an inspiration to future workers in this particular field.

W. J. OSBURN

A new educational periodical to be known as the *Journal of Higher Education* will be issued for the first time next September by the Ohio State University Press. The editorial policy of the magazine will be directed by W. W. Charters, of the Bureau of Educational Research at Ohio State University, and a group of widely known associate editors. It is hoped that the magazine will be a national medium for the publication of materials dealing with the educational and personnel aspects of higher education. W. E. Pearce, director of the Ohio State University Press, will be the business manager.

New school buildings, school conditions, school legislation, radio programs, and diverse other news of educational interest are found in the monthly bulletin, "School News," issued by the Gallia County schools under the direction of Superintendent E. W. Edwards.

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PUPIL FREEDOM WITH RESPONSIBILITY

NEW YORK STATE is presenting a most interesting educational experiment in athletics. Under the guidance of the State Director of Health and Physical Education, a large number of the schools in that state last year inaugurated a new system whereby the control and direction of athletic teams during a contest was taken from the coach and given to the players. Schools in large cities, such as Buffalo, Rochester, Syracuse, and Albany, used this innovation in all contests, and other places used it in sectional and state tournaments. Amazing as it may seem to many, it worked.

"After the contest has begun, no coach or other adult, save duly constituted officials, shall interfere with the activity of the contestants," and "side-line coaching . . . [and] coaching between halves by others than the contestants themselves is prohibited," are brief excerpts from what is contained in the first rule governing such contests. In other words, this regulation attempts to guarantee to the players the rights and benefits of playing their own game. It was adopted by the New York State Public High-School Athletic Association and has been indorsed by the Associated Academic Principals and the New York State Council of Superintendents.

Two reasons have been presented in support of high-school athletics. First, there is the benefit to the participants in health and the development of worth-while characteristics, such as loyalty, initiative, courage, and persistence. In the second place, there is benefit to the school in binding together the student body; in developing a group loyalty to the institution; and, perhaps — though not often openly voiced—in promoting publicity among those who contemplate entering a school of that grade. Such results of athletic training and contests can undoubtedly be more extensively realized by the new system than by the one now in vogue.

In a book which has just been published, the New York State Director of Health and Physical Education explains the pedagogical theory back of this new regulation.[1] He calls upon educational philosophers and psychologists to support his theory and reports the testimony of students who have played under the regulation. They testified that the principle is right; that worth-while qualities, such as initiative, are best learned by having full responsibility for results; and that it more nearly approximates other educational situations in which, after the teacher teaches, the student is on his own during the test.

[1] Rogers, Frederick Rand. *The Amateur Spirit in Scholastic Games and Sports.* Albany, New York, C. F. Williams and Son, 1929. 148 pp.

New York State is undertaking to ascertain whether interscholastic games and sports can be aligned with educational principles; and whether each game can be a period of learning during which the players draw upon the facts they have been taught and apply them to new problems. Students of education should be tremendously interested in the outcome of such an experiment.

The criticism may be made that little attention is being given to the audience and to the competitive spirit which is instinctive in human beings. The question is also raised whether others than the captain of the team are getting the benefit derived from removing the coach and whether the contest is to be viewed in the light of a test or of a teaching situation. It is probable that most of the objections to this new scheme come from our tendency to support that to which we are accustomed rather than from a well-defined philosophy of education.

This experiment is certainly in accord with other experiments, that are becoming increasingly numerous, which attempt to create a democratic situation in education and to train children in responsibility through making them responsible. Dr. Rogers makes a statement with which the writer most heartily agrees—that if freedom with responsibility can be successfully utilized in the field of athletics, it may also be utilized in other extra-curricular activities, such as plays, operettas, and orchestras, and may—to an increasing extent—be found a workable principle in academic education.

E. J. A.

A WEIGHTING SCHEME FOR FRESHMEN GRADES

T. C. HOLY

Ohio State University

IN the course of an investigation made at the University of Iowa, the achievement of freshmen students was correlated with other variables included in the study. To make such correlation it was necessary, first of all, to arrive at some objective measure of the students' achievements. This was done in the Registrar's office by multiplying the number of credit hours of each mark earned by a weight that is constant in all departments, for instance, A is 4; B, 3; C, 2; D, 1; Condition, 0; Incomplete, —.5; and Failure, —1. The total points were then divided by the number of hours carried, and the result was the Registrar's point score.

Three chief objections have been made to this method as a measure of achievement in college work. (1) It does not recognize the well-known fact that an A does not have the same value in all departments. (2) It is an index of the quality of scholarship but not of the quantitative achievement. (3) It allows no credit for work done in military drill or physical training, nor does it penalize for failure in these. The first objection is probably the most important, as data in this article will indicate.

The Registrar's method, therefore, was not adequate for the study, and it was necessary to devise another which would make comparable the composite scores in the various departments and colleges of the University. The first step was to ascertain the number of credit hours of A, B, C, D, Condition, and Failure given in the different departments for the first semester of 1923-24. Each mark earned by these Freshmen was tabulated according to grade and department, the credit hour rather than the course being taken as the unit. The percentage distribution of the marks for the College of Liberal Arts was then calculated, as shown in Table I. Key letters have been used to designate the departments.

TABLE I

PERCENTAGE DISTRIBUTION OF MARKS GIVEN BY DEPARTMENTS IN THE COLLEGE OF LIBERAL ARTS

Department	Mark of A	Mark of B	Mark of C	Mark of D	Mark of Condition	Mark of Failure	Total Credit Hours by Departments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
F	3	25	38	28	1	5	306
G	5	17	40	21	1	16	1,337
H	7	25	41	18	4	5	867
I	4	23	42	24	4	3	3,067
J	8	26	37	20	2	8	1,239
K	4	21	46	19	5	6	1,138
L	9	15	40	14	6	16	449
M	4	25	53	17	1	.....	396
N	5	17	47	23	5	4	1,184
O	9	25	47	13	3	3	64
P	14	39	23	21	.....	4	208
Q	9	20	46	17	1	7	595
R	11	16	44	21	2	7	168
S	4	24	41	24	4	4	115
T	8	16	35	22	10	9	715
U	11	25	34	8	12	9	442
V	6	19	45	22	3	6	902
W	5	21	35	20	2	17	1,571
X	4	23	48	20	2	3	816
Y	1	18	21	43	4	13	336
Total credit hours by marks	882	3,384	6,510	3,351	571	1,217	15,915

It is seen from the table that 14 percent of all the marks earned by Freshmen in Department P, for example, were A's, 39 percent were B's, 23 percent were C's, 21 percent were D's, none were Conditions, and 4 percent were Failures. Courses marked "dropped," "left," "absent," or "excused" were not tabulated.

It is evident from this table that an A in one department does not have the same value as in another. One's chances of getting an A in Department P are fifteen times as great as in Department Y. If A is reliable as a mark of the best work in any department, then it is much more a mark of distinction in Department Y than in Department P. In the two other colleges included in the study—Applied Science and Pharmacy—a similar condition was found. As shown in Table II, the percent of A marks by departments in the Applied Science College ranged from 4 percent to 12 percent, and

the percent of failures, from 0 in three of the six departments to 6 percent. In the College of Pharmacy, Table III, the range of A marks is from 2 to 11 percent, with a wide range of Failures extending from 0 to 16 percent. Departments Ph T and Ph V present an interesting comparison in Conditions and Failures. The first of these gave no Conditions and 16 percent of Failures, while the second gave 16 percent of Conditions, but no Failures.

The percent of the total credit hours awarded an A mark was 6 percent in the Liberal Arts, 7 percent in Applied Science, and 8 percent in Pharmacy. In the C mark, which represents the average student, the percent of the total credit hours was 41, 49, and 43, respectively. The greatest variation was found in the Failures which ranged from 3 percent in Applied Science to 9 percent in Pharmacy. The Liberal Arts Failures amounted to 8 percent. The variations, then, in the distribution of marks of the three colleges is much less than in the departments within each of the colleges.

TABLE II

PERCENTAGE DISTRIBUTION OF MARKS GIVEN BY DEPARTMENTS IN THE COLLEGE OF APPLIED SCIENCE

Department	Mark of A	Mark of B	Mark of C	Mark of D	Mark of Condition	Mark of Failure	Total Credit Hours by Departments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AS Q.....	4	18	51	23	2	2	49
AS R.....	6	18	54	15	2	6	489
AS S.....	12	19	58	10	1	.....	170
AS T.....	4	14	62	14	6	.....	213
AS U.....	8	21	29	38	2	2	313
AS V.....	10	35	50	5	.....	.....	184
Total credit hours by marks.....	104	290	700	257	30	37	1,418

TABLE III

PERCENTAGE DISTRIBUTION OF MARKS GIVEN BY DEPARTMENTS IN THE COLLEGE OF PHARMACY

Department	Mark of A	Mark of B	Mark of C	Mark of D	Mark of Condition	Mark of Failure	Total Credit Hours by Departments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ph Q.....	11	12	44	24	9	.....	198
Ph S.....	7	12	64	7	2	10	183
Ph T.....	10	21	35	19	.....	16	290
Ph U.....	6	21	35	19	6	13	189
Ph V.....	6	11	46	22	16	.....	70
Ph W.....	2	15	39	24	10	10	41
Total credit hours by marks.....	80	158	418	176	48	91	971

A score can be obtained by using the Kelley-Wood table which will express its average position in relation to the mean of the distribution.[1] If the assumption is made that the distribution of students in ability and preparation follows the normal curve and that the abilities of the students in the various departments are approximately the same—that is, the mean student in Department Q, for example, is equal in ability and preparation to the mean student electing courses in other departments—the value of any mark in any department is then proportional to the deviation of the mean of the group awarded that grade from the average of the entire group.

From the Kelley-Wood table can be determined the mean deviation of a tail or an interval of a normal distribution. In this determination, three assumptions are made: first, that the entire distribution is in the form of a normal curve; second, that the population is unity; and, third, that the standard deviation is unity. The formula then for determining the mean deviation of a portion of a unit normal distribution is as follows:

$$d = \frac{z_1 - z_2}{q_1 - q_2}.$$ [2]

These mean deviations of the portions are expressed in terms of the standard deviation as a unit, away from the mean of the group, positive if toward the right and negative if toward the left. In order to reduce these scores to an origin such that there were no negative scores, the origin was moved from the mean of the distribution to the mean of the lowest score, Failure, of each department. The distance from the mean of Failure to the mean of Condition, expressed as a fraction of the standard deviation of the entire distribution, was then taken as the value for Condition; likewise, the distance from the mean of Failure to the mean of the D Group, measured along the base line and using the standard deviation as a unit, was taken as the weighted score for D in that department.

TABLE IV

WEIGHTED SCORES PER FRESHMAN CREDIT HOUR IN THE COLLEGE OF LIBERAL ARTS

Department	Mark of A	Mark of B	Mark of C	Mark of D	Mark of Condition
(1)	(2)	(3)	(4)	(5)	(6)
F.....	4.4	3.1	2.1	1.2	.5
G.....	3.6	2.7	1.7	.9	.6
H.....	4.0	2.9	2.0	1.1	.6
I.....	4.4	3.3	2.3	1.3	.6
J.....	3.7	2.7	1.8	1.0	.5
K.....	4.2	3.1	2.1	1.2	.6
L.....	3.3	2.6	1.7	1.0	.6
M.....	4.8	3.7	2.5	1.3	.0
N.....	4.2	3.3	2.3	1.3	.6
O.....	4.0	3.0	2.0	1.1	.6
P.....	3.8	2.6	1.8	1.1	.0
Q.....	3.7	2.8	1.9	.9	.5
R.....	3.6	2.8	2.0	1.0	.5
S.....	4.4	3.3	2.2	1.3	.6
T.....	3.6	2.8	2.0	1.3	.7
U.....	3.4	2.5	2.0[a]	1.0	.8
V.....	4.0	3.1	2.1	1.1	.5
W.....	3.6	2.6	1.7	.9	.6
X.....	4.4	3.3	2.2	1.2	.5
Y.....	4.5	3.3	2.2	1.2	.6

[a] The weighted value of C was changed from 1.7 to 2.0. This change was made in order that the average weight for C might be given for the boys to whom no grade other than credit was given in physical training.

Table IV gives the weighted scores for each department of the Liberal Arts College where freshmen students were registered during the first semester of 1923-24. Similar weighted scores using the same method were computed for the Applied Science and

[1] Kelley, Truman L. *Statistical Method.* New York, Macmillan Company, 1924. pp. 371-83.

[2] *Op. cit.*, p. 101.

Pharmacy students. To arrive at a final weighted score, for individual students, the following steps were taken :(1) For each course pursued by Freshmen in the Colleges of Liberal Arts, Applied Science, and Pharmacy, the number of hours was multiplied by the weighted score given for the grade earned. (2) Credit in military drill and physical training was given the weighted score of 2, the average score given to one hour of C credit in the various Liberal Arts departments. (3) No score was allowed for freshmen lectures. (4) The sum of these weighted scores, was taken as the composite grade score of each individual student.

In the case of the Applied Science Freshmen, it was necessary to deviate somewhat from this procedure. While it was desired to keep the weightings of this group separate from that of the others, there were four courses of the Liberal Arts College in which Freshmen from the Applied Science College were registered, but to such a small extent that it was not possible to make up a weighted score for these departments in the Applied Science College. One Applied Science student was enrolled in accounting, three in courses in economics, seven in German courses, and one in a Spanish course. In these departments, the weighting of the Liberal Arts College was used. The maximum number of hours carried by Freshmen in the Applied Science College was eighteen, while that of Liberal Arts was only sixteen.

The marks of the Applied Science students were earned in competition with other students carrying eighteen hours of work. While the work required was probably less per credit hour than that required where only sixteen hours were taken, the weight given was the same. In order, then, to make the Applied Science group comparable with the Liberal Arts and Pharmacy groups, it was necessary to make some compensation for this difference in the maximum number of hours carried. This was done by multiplying the total composite grade score of the students in the College of Applied Science by the ratio between the maximum number of credit hours carried in the college and that of the Liberal Arts and Pharmacy Colleges, that is, 16/18. These composite grade scores were then used in the correlations with the other variables included in the study.

WHO'S WHO AT THE NINTH EDUCATIONAL CONFERENCE

ADULT EDUCATION SECTION—

KLEIN, ARTHUR J.—Because of the recently established adult-education service at the Ohio State University, Mr. Klein's address will be of particular interest. His topic is to be "The Relation of the Adult Education Movement to Established Higher Educational Institutions." Mr. Klein has had considerable experience in adult education as associate director of the Division of Educational Extension in the United States Bureau of Education and educational adviser of

the United States Army Correspondence Courses. Since 1926 he has been head of the Division of Higher Education of the United States Bureau of Education. Mr. Klein received his undergraduate degree from Wabash College, the Bachelor of Divinity degree from Union Theological Seminary, and the Master's and Doctor's degrees from Columbia University.

ART SECTION—

BENEKER, GERRITT A.—For his Victory Loan Poster, "Sure, We'll Finish the Job," Mr. Beneker is well known. He has specialized in industrial art and will also address the Industrial and Vocational Education Section. His work has been exhibited at the National Academy of Design, the Chicago Art Institute, the Pennsylvania Academy of Fine Arts, the Carnegie Art Institute, and the Corcoran Galleries.

BIOLOGICAL SCIENCE SECTION—

BARROWS, W. M.—Since 1909, Mr. Barrows has been a member of the faculty of the Department of Zoology at Ohio State University. Both the Master of Science and Doctor of Science degrees were conferred upon him by Harvard University. His undergraduate work was done at Michigan State College.

GAGER, C. STUART.—Among the books which Mr. Gager has published are *Laboratory Guide for General Botany*, *Heredity and Evolution in Plants*, *The Relation between Science and Theology*, and *General Botany with Special Reference to Its Economic Aspect*. Since 1910, he has been Director of the Brooklyn Botanic Garden. On the *American Journal of Botany*, *Ecology*, *and Genetics* he has given his services as business manager, and since 1912 he has edited the *Brooklyn Botanic Garden Record*. His address at this Conference will be "Biology and the Public."

ATTENDANCE SUPERVISORS', SCHOOL NURSES', AND VISITING TEACHERS' SECTION—

JASTROW, JOSEPH.—As a professor of psychology at the University of Wisconsin for more than thirty years, Mr. Jastrow was well known to hundreds of undergraduates and graduate students. As a lecturer and writer on practically every phase of psychology he became known to all interested in that subject. Now, as author of *Keeping Mentally Fit*, he is known to thousands of readers who are seeking intelligent guidance on everyday problems. At present Mr. Jastrow is a lecturer at the New School for Social Research in New York.

COUNTY SUPERINTENDENTS' SECTION—

BUTTERWORTH, J. E.—Mr. Butterworth's educational experience covers a wide range of activity from high-school teaching to the deanship of a college of education. Since 1919 he has been professor of rural education at Cornell University. In 1920-21 he was on the Commission of Twenty-One which studied rural education in New York. *Principles of Rural School Administration*, *Problems in State High-School Finance*, and *The Parent-Teacher Association and Its Work*

are among the publications which he has issued since 1918. Articles under his name have appeared frequently in educational publications. The Parent-Teacher Section has also engaged him for an address.

CLIFTON, J. L.—As State Director of Education for Ohio and former head of the Appointments Division at Ohio State University, Mr. Clifton needs no introduction to Ohio people.

COLLINS, J. E.—Mr. Collins comes from Miami University, where he is professor of education in Teachers College, to address this section. His undergraduate work was done at Ohio Wesleyan University and his Master's work at Columbia University. He will speak to this section on "Intelligence, Schooling, and Size of Family by Occupational Groups in City and Rural Schools."

RHOADE, C. L.—Through his work as county superintendent of schools in La Porte County, Indiana, Mr. Rhoade has had first-hand experience in the field of rural education. He will draw upon that experience in his address, "Evaluating Education in Terms of Rural Needs."

EDUCATIONAL AND INTELLIGENCE TESTS SECTION—

GATES, ARTHUR I.—Dr. Gates, professor of educational psychology at Teachers College, Columbia University, is well known for his research in how and why children use words. Among the publications which he has written are, *Psychology of Reading and Spelling*, *Reading Vocabulary for Primary Grades*, *Improvement in Reading*, *New Methods in Primary Reading*, and *Psychology for Students of Education*. The topic of his address before this section is "Formal and Informal Testing of Educational Attainments."

OSBURN, W. J.—Mr. Osburn had ample opportunity to study the uses and results of educational and intelligence tests in his position as Director of Tests and Measurements with the Wisconsin State Department of Education. Since September, 1928, he has been associated with Ohio State University as a professor in the Department of School Administration. As a result of his extensive study of diagnostic arithmetic testing while in Wisconsin, he compiled material on remedial work which is given in his book, *Corrective Arithmetic*. He is co-author with B. R. Buckingham of the series of *Searchlight Arithmetics*.

RANKIN, PAUL T.—Before taking his position as assistant director of instructional research in the Detroit public schools, Mr. Rankin had considerable experience in secondary teaching. He has contributed numerous articles on diverse subjects to educational periodicals. "Listening Ability, Its Importance, Development, and Measurement," is the subject on which he has chosen to speak to this section. Mr. Rankin received his Ph. D. degree from the University of Michigan.

ELEMENTARY TEACHERS' SECTION—

FREEMAN, F. N.—*Psychology of the Common Branches*, *Experimental Education*, *How Children Learn*, and

Motion Pictures in Education are among the published writings of Mr. Freeman. He has been connected with the University of Chicago since receiving his doctorate from Yale University and in 1920 was made professor of educational psychology. The *Journal of Educational Psychology* and the *Elementary School Journal* list him as an associate editor.

MORTON, R. L.—Mr. Morton needs no introduction to Ohio educators. He is on the College of Education faculty at Ohio University during the regular session and the Department of School Administration faculty at Ohio State University during the Summer Quarter. He will again preside, as he did last year, at the meeting of the Mathematics Section of the Conference.

ZIRBES, LAURA.—Miss Zirbes has had considerable teaching experience in the elementary grades, chiefly in Cleveland, and in colleges and universities, such as Teachers College, Columbia University, and George Peabody Teachers College. Her B. S., M. A., and Ph. D. degrees she received from Columbia University.

A number of important studies in reading have been made by Miss Zirbes. One of these is her Doctor's dissertation, *Comparative Studies of Current Practice in Reading with Techniques for the Improvement of Teaching*. She collaborated with Dean W. S. Gray, of the University of Chicago, in the preparation of material on the improvement of practice in reading, and is now cooperating with a group of twelve educators on a book to be entitled, *Supervision in Elementary Schools*.

Since last fall she has been a part-time member of the faculty of the College of Education at Ohio State University. Half of her time is given to work in the State Department of Education.

ON THE FIRING LINE

As the result of a campaign carried on by the school board in Warren to relieve congestion in the elementary schools, a bond issue for $210,000 was carried on November 6. "A Statement of a School Need and Its Solution," is the title of a pamphlet which was published to acquaint school patrons with the facts regarding school enrollment and expenditure.

In the Kent public schools a study is being carried on to determine whether or not the elimination of definite practice material causes any loss in the ability to handle the fundamental operations in arithmetic. A test was given last October, when this material was dropped, and a study is now in the process to ascertain whether any decrease in ability in the fundamental arithmetic processes has occurred.

Superintendent W. A. Walls, of the Kent public schools, writes us that this year, for the first time, Kent has hired a teacher to work with the conditionally promoted pupils in order to

ing to the grade from which they were conditionally promoted. He states: "If we can save these pupils a year's repetition by a little 'boosting' work during the twelve weeks for which they are conditionally promoted, we will feel that we have done a good service to the child and saved some expense to the taxpayers."

Believing that the established curriculum in English for the college entrance group in the Kent high school was not accomplishing a proper objective, a new type of English work was begun with the sophomore class in the spring of 1928. According to Superintendent Walls, the old plan had been to require students to study English literature, after which the teacher conducted what Mr. Walls calls "a post-mortem" on a few of the classics. This spring, however, the members of the sophomore class who were to enroll in the college-entrance group in the fall were given the selective reading list to be used during the summer vacation. The students were not required to read these books, but were told that an acquaintance with some of them would add to their enjoyment of English in the junior and senior years. Mr. Walls does not give us results of this suggestion for reading. He does say, however, that his teachers hope to give their pupils some idea of the world's best literature through this new type of course.

The Public School Achievement Test in English Grammar by Jacob S. Orleans was given to all seventh- and eighth-grade pupils in the Delaware County schools in November. The tests were given by the county superintendent, H. T. Main. Separate reports giving the name and score of all pupils in each school were sent to each superintendent and teacher. Inclosed with that was a list of all the individual scores in the county schools. In addition, each superintendent and teacher was furnished with the standard median, the county median, and the median of his own school.

EDUCATIONAL READINGS

HERTZLER, SILAS. "The Earliest Public High-School Law in Connecticut," *Journal of Educational Research*, 18:378-80, December, 1928.

A bit of research in the history of education is reported in this article. From it we learn that "the 'school of a higher' order permitted in Connecticut as early as 1798 was in a true sense a forerunner of the modern public high school."

ELSBEE, WILLARD S. "An Evaluation of the Single Salary Schedule," *Teachers College Record*, 30:227-32, December, 1928.

The author reports that 153 cities of the United States employ the single salary schedule. This indicates a recent rapid growth. The advantages of the plan are (1) ease of administration, (2) impartiality, (3) encouragement offered teachers to teach in positions for which they are best fitted, and (4) incentive to further training. Its lone weakness seems to be failure to reward merit. The author suggests plans for overcoming this weakness, and forecasts that efficiency may sometimes become the third factor in the single salary schedule in which the other two are number of years of training and number of years of experience.

JONES, LONZO. "A Project in Student Personnel Service at the College Level," *School and Society*, 28:765-68, December 15, 1928.

The very worth-while attempt of a small college to fit education to the individual, rather than vice versa, has been reported by Mr. Jones. One hundred twelve Freshmen were classified into

five expectancy levels by T-scores from a composite raw score of seven tests. All achievement marks were then converted into T-scores and compared with the expectancy level, deviation from this level being measured in terms of probable errors. Personnel services were then developed on the basis of diagnoses following these comparisons, with results that were decidedly beneficial to the college, faculty, and students.

WRENN, C. G. "Factors Determining a Child's Moral Standards," *Education*, 49:206-13, December, 1928.

A study of the relationships between a child's moral standards, his intelligence rating, and certain home conditions is reported in this article. The test as set up for determining the factors consisted of eighteen moral problems and was given to eighth-grade pupils. The tests were administered, scored, and grouped into quartiles. Relationships were then determined between certain home conditions and the highest and the lowest quartiles. The relation of the moral-judgments score to the intelligence quotient which was next studied was found to be relatively high.

WHEELER, J. L. "Educational Books of 1928," *School and Society*, 28:801-15, December 29, 1928.

This list of more than four hundred publications of 1928 on teaching, school administration, and educational research has been submitted to more than two hundred specialists who will act as judges in compiling the annual selected list of sixty educational books for the *Journal of the National Education Association*, probably for March. The books are classified under 23 general headings, which enables one, by comparison with similar lists of previous years, to study the trends of educational literature of this sort.

BODE, BOYD H. "The Most Outstanding Next Steps for Curriculum Makers in the United States," *Teachers College Record*, 30:179-91, December, 1928.

RUGG, HAROLD, BONSER, FREDERICK G., AND SNEDDEN, DAVID. "Discussion of Professor Bode's Paper," *Teachers College Record*, 30: 192-211, December, 1928.

It is, perhaps, not too much to say that the essence of Dr. Bode's courses, "Conceptions of Mind in Educational Theory," and "College Teaching," and some of his course, "Modern Tendencies in Education," may be found in this paper. His students will recognize many of his fundamental theses admirably summarized by Dr. Snedden and will even find them couched in strangely familiar phrases. In succeeding papers, three of his contemporaries present their respective discussions of his assertions. In certain respects they agree with him, but the point of departure occurs when he says, "In my opinion all this industry called the 'scientific determination of objectives' is on a par with catching birds by putting salt on their tails. The problem of ultimate objectives is not a scientific problem at all." The reviewer feels that the keenest of the three discussions is Dr. Snedden's, in which he, sensing a "catch" in Dr. Bode's use of the word "ultimate," argues that it is saner for education to concern itself with "proximate" rather than "ultimate" objectives, since the former are more attainable and more practicable.

CLEMENS, PAUL B., AND NEUBAUER, PAUL F. "A Supervision Project in Multiplication," *Journal of Educational Research*, 18:387-96, December, 1928.

This article presents in detail an actual project in multiplication carried on in a number of classrooms. Among the significant results was a confirmation of one already found by others, namely, that drill upon the specific skills in which pupils were weak yielded larger returns than indiscriminate drill.

GOODENOUGH, FLORENCE L., AND SHAPIRO, GERTRUDE. "The Performance of Pre-school Children of Different Social Groups on the Kuhlman-Binet Tests," *Journal of Educational Research*, 18:350-62, December, 1928.

A group of 380 children from 18 to 54 months of age were used in this study. There seems to be superiority on the part of the children from the higher social classes. The greater superiority is in language tests, though the children of group B — lower social group — do slightly better in motor tests, naming of coins, and adaptive behavior.

DONOVAN, JOHN J. "Little but Important Things Often Forgotten in Schoolhouse Planning," *American School Board Journal*, 78:39-40, January, 1929.

School buildings are frequently found where a fairly satisfactory amount of attention has been given to the major items of planning, such as flexibility and expansibility, but practically none to the smaller items which contribute much to the usefulness of the building. Twelve of these smaller and yet very important factors are discussed with pertinent comment and suggestions to those concerned with schoolhouse planning.

MALONEY, ESTELLE L., AND RUCH, G. M. "The Use of Objective Tests in Teaching as Illustrated by Grammar," *School Review*, 37:62-66, January, 1929.

Some suggestions are made in this article relative to the use of objective tests in teaching based on experimental results supporting their value. In one experiment a large number of

pupils was divided into three groups, one using the textbook alone; the second, objective tests alone; and the third, a combination of the two. The experiment dealt with the teaching of grammar in the high school and the results indicate that the test method proved superior to the other two methods in all grades. The authors recognize that the better results might be explained, in part, at least, by the novelty of the teaching method or by greater definiteness of lesson assignment.

WOLTRING, CLARA. "Analyzing the Form of Handwriting in the Second Grade," *Elementary School Journal*, 29:358-65, January, 1929.

Elementary teachers who have difficulty in vitalizing the writing lesson and in getting results in teaching pupils to write will find excellent aid in this presentation of methods based on analysis of the form of handwriting. Teaching of handwriting gives the pupil an opportunity to analyze the problems in writing, to see where his writing needs attention, to receive stimulation that will give him a desire to improve his writing and to find means of definitely correcting his weaknesses.

IN PAPER COVERS

Sixth Annual Report of the Department of Public Welfare. Columbus, Ohio, State Department of Public Welfare, 1927. 121 pp.

Interesting descriptive material as well as statistical data are found in this annual report concerning the work of the Department of Public Welfare of Ohio for the year ending June 30, 1927. The six divisions of the Department are the Institution Division, which includes twenty-three state institutions; the Division of Charities, which has three bureaus—Child-Care, Support and Institutional Inspection; the Ohio Board of Clemency governing pardons and paroles; the Bureau of Criminal Identification and Investigation; the Ohio Commission for the Blind; and the Manufacturing and Sales Department.

SMITH, HENRY LESTER, AND CHAMBERLAIN, LEO MARTIN. *A Bibliography of School Buildings, Grounds, and Equipment.* Bloomington, Indiana, Indiana University, 1928. 321 pp. (Bulletin of the School of Education, Indiana University, Vol. IV)

This bibliography includes 2,263 different references, consecutively numbered and divided into twenty-two main headings, a number of which are further divided into subheadings. Among these twenty-two are such divisions as: Architectural Styles and Building Types; Preliminary Considerations and the Development of the Building Program; The School Grounds; Space Provisions, Layout, and Equipment; and Mechanical Equipment. Books, regardless of date of publication, and bulletin and periodical references for the period January 1, 1906, to September 1, 1927, have been included. The compilation bears evidence of having been carefully done. It should prove helpful to administrators, teachers, and students interested in the field of school buildings, grounds, and equipment.

REMMERS, H. H. *A Diagnostic and Remedial Study of Potentially and Actually Failing Students at Purdue University.* Lafayette, Indiana, Purdue University, 1928. 161 pp. (Bulletin of Purdue University, Studies in Higher Education, IX)

The members of the 1926 freshman class at Purdue University were given six quasi-intellectual and scholastic tests. On the basis of these scores, the lower two hundred—practically one-fourth—were chosen for the experiment reported in this study. Alternate students from the two hundred were chosen for the experimental group, which received special direction in study; and the rest of the students were known as the control group, which received no special treatment. The results were measured by a study of the marks of the two groups and by an objective examination to check on the criterion of semester grades. The experimental group had 650 passing grades as compared with 526 for the control group.

HEER, AMOS L. *The Present Status of Business Executives in the Public Schools of the United States in Cities of 25,000 and More Inhabitants.* Kent, Ohio, Kent State Normal College, 1928. vii + 170 pp.

To ascertain the present status of school business officials in the larger cities of the United States was the primary purpose of this study. It presents data on such matters as the legal status of those officials, their relations to the superintendent and the board of education, their qualifications, salary, term of office and tenure, and functions.

The study is critical, constructive, and interpretative. Doctor Heer shows *what is*, and on the basis of the facts brought out by his study and general principles of school administration, he shows what *ought to be*. The unit versus the multiple types of administrative relationships are studied, and the unit type recommended. In general, the author finds that the position of school-business executive is largely unstandardized and unprofessionalized. Like Topsy, the position has "just growed." It is in about the same state that the superintendency of schools was fifty or seventy-five years ago.